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09/922,657	08/07/2001	Azusa Iwai	YOK-100	9173

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EXAMINER

RUDOLPH, VINCENT M

ART UNIT PAPER NUMBER

2624

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Please find below and/or attached an Office communication concerning this application or proceeding.

DETAILED ACTION

Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-11, 14-16, and 19-21, and 24-26 are drawn to have an apparatus for displaying a plurality of preview images with different resolution levels, each in parallel to one another and also output preview images from the print job.

Group II, claim(s) 12, 17, and 22 are drawn to generating a unit for showing progress for the preview generation of a preview image to print.

Group III, claim(s) 13, 18, and 23 are drawn to provide a unit to input a command to stop the process for outputting preview images to print.

Inventions I and II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention I has a separate utility that allows the user to view up to three different modes at once all in parallel without requiring use of a progress bar for the generating a preview image. See MPEP § 806.05(d).

Inventions I and III are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention I has a separate utility such as being able to display several preview images in parallel with various resolution

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levels without requiring letting the user stop the image from generating a print preview image. See MPEP § 806.05(d).

Inventions II and III are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention II has a separate utility such as having a progress bar for generating print preview images without allowing the user to stop the preview image from generating. See MPEP § 806.05(d).

The inventions are distinct, each from the other because of the following reasons:

Applicant's election without traverse of claims 1-11, 14-16, 19-21 and 24-26 in the reply filed on June 9, 2005 is acknowledged.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear what kind of memory for relatively faster accessibility is being referred for transferring the image since there are several types of memory that qualify such as RAM, cache from a CPU, RAM or disk storage.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8, 10-11, 14-16 and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Slayden ('901) in view of Cullen ('230).

Regarding claim 1, Slayden ('901) discloses using an apparatus, or facility, for displaying user-selected preview image modes (See Col. 5, Line 5-7), and generates these preview images of the same object on different resolution levels (See Figure 9-11; Col. 5, Line 7-15).

Slayden ('901) does not disclose being able to display the preview images in parallel to one another.

Cullen ('230) discloses that a user is able to zoom in on an image within a display and have it enlarged within the same window, which is in parallel to original source image (See Figure 8).

It would have been obvious to one of ordinary skill in the art at the time of invention by the applicant to have the zoom process disclosed by Cullen ('230) incorporated into the apparatus of Slayden ('901) because by adding the feature, the user can view more of the detail of the image portion contained within the selected fragment.

Thus, claim 1 is rejected under 35 U.S.C. 103(a).

Regarding claim 3, Slayden ('901) discloses an apparatus, or facility, for displaying user-selected preview image modes (See Col. 5, Line 5-7), and output a selected unit page as a first-mode image (See Figure 10). The user can also output a

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composite view of the image as a second-mode preview image, which is part of a plurality of other element pages printed separately and then put together into a complete print (See Figure 11).

Slayden ('901) does not disclose being able to display the preview images in parallel to one another.

Cullen ('230) discloses that a user is able to zoom in on an image within a display and have it enlarged within the same window, which is in parallel to the original source image (See Figure 8).

It would have been obvious to one of ordinary skill in the art at the time of invention by the applicant to have the zoom process disclosed by Cullen ('230) incorporated into the apparatus of Slayden ('901) because by adding the feature, the user can view more of the detail of the image portion contained within the selected fragment as well as having them parallel to one another.

Thus, claim 3 is rejected under 35 U.S.C. 103(a).

Regarding claim 2, the rationale provided in rejection of claim 3 is incorporated herein, Slayden ('901) also adds that when zooming is selected as a third-mode preview image, the preview position goes at or near the place where the user clicked (See Col. 7, Line 21-23).

Slayden ('901) does not disclose being able to display the three preview mode images in parallel to one another.

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Cullen ('230) discloses that a user is able to zoom in on an image within a display and have it enlarged within the same window, which is in parallel to the original source image (See Figure 8).

It would have been obvious to one of ordinary skill in the art at the time of invention by the applicant to have the zoom process disclosed by Cullen ('230) incorporated into the apparatus of Slayden ('901) because by adding the feature, the user can have the progressive steps shown for the selected image parallel to each other, and when the selected image is zoomed, it can view more detail of the image portion contained within the selected fragment.

Thus, claim 2 is rejected under 35 U.S.C. 103(a).

Regarding claim 4, Slayden ('901) discloses that whenever the user is in first-mode, or single page mode, and click anywhere within that area, the current preview mode becomes third-mode, or zooming, and is zoomed at or near the destination point (See Col. 7, Line 19-23)

Slayden ('901) does not disclose a framed spot selected on the page so the chosen spot is recognizable as the third-mode preview image.

Cullen ('230) shows that when a user selects a particular area to enlarge, the chosen area is framed and recognizable (See Figure 8; Col. 9, Line 23-25).

It would have been obvious to one of ordinary skill in the art at the time of invention by the applicant to have the spot selected frame shown in Cullen ('230) and incorporate into the apparatus of Slayden ('901) because by adding the feature, the selected area is enlarged, still visible to the user and in parallel to the designated area.

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Thus, claim 4 is rejected under 35 U.S.C. 103(a).

Regarding claim 5, the rationale provided in the rejection of claim 4 in incorporated herein.

Regarding claim 6, Slayden ('901) discloses after the display unit, or facility, outputs the first and second-mode preview images, the appropriately reduced image, such as a magnification factor, is used to display the bitmap data (See Figure 10 and 11) is viewed in a single virtual window (See Col. 7, Line 26-37; Col. 7, Line 50-57). When the user selects the third-mode preview image, or zoom mode according to Slayden ('901), the image data is zoomed in, but it is actually displayed at its actual size (See Col. 7, Line 11-18) still equally scaled to the first and second-mode preview images as seen in Figure 9 when compared to Figure 2 10 and 11.

Regarding claim 7, Slayden ('901) discloses the print preview display unit, or visual interface (See top part of Figure 9), taking control action for making image data accessible by the user specified actions of selecting the mode exclusively at a given time, generating the preview image in phases, or steps, by orderly accessing the data to the user selected print preview mode and outputting it on the display unit prior to printing (See Col.5, Line 48-58).

Regarding claim 8, Slayden ('901) discloses the print preview display, or facility, uses computer memory to help transfer the data for relatively faster accessibility to run it while also taking control action for making image data accessible by the user specified actions of selecting the mode exclusively at a given time (See Col. 8, Line 15-18).

Slayden ('901) does not disclose the particular type of memory being used to help run transfer the data.

There are several types of memory that can be used to transfer the data for relatively faster accessibility, which can include on-board memory, or RAM, to access the data faster within the generating phase for outputting it to a display unit. Another type is cache, which can be memory found in a CPU or RAM, or disk cache found in disk storage, both of which is used to speed up the transfer of data.

It would have been obvious to one of ordinary skill in the art at the time of invention by the applicant to use one of the above mentioned memory to transfer the image data. By adding one of those types of memory, the data can transfer relatively faster so the user can access the print preview display exclusively at a given time.

Thus, claim 8 is rejected under 35 U.S.C. 103(a).

Regarding claim 10, Slayden ('901) discloses that the print preview display, or visual interface, can accept requests for an image to be displayed in first mode, or single page mode (See Figure 10), when the user clicks one of the elements within the multiple page mode, or second mode (See Figure 11; Col. 7, Line 39-42).

Regarding claim 11, Slayden ('901) discloses that the print preview display, or visual interface, can accept a request by the user to select one of the plurality of pages in second-mode preview display, output the requested image that is displayed in first mode, or single page mode and the print it by hitting the print tab button (See Navigation Toolbar in Figure 10; Col. 7, Line 39-43).

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Regarding claims 14-16, the rationale provided in the rejection of claims 1-3 is incorporated herein. In addition, the apparatus of claims 1-3 correspond to the method of claims 14-16 and perform these steps also.

Regarding claim 19, Slayden ('901) discloses an application program running on a computer system using computer memory (See Col. 8, Line 11-18) for displaying user-selected preview image modes (See Col. 5, Line 5-7), and generates these preview images of the same object on different resolution levels (See Figure 9-11; Col. 5, Line 7-15).

Slayden ('901) does not disclose being able to display the preview images in parallel to one another.

Cullen ('230) discloses that a user is able to zoom in on an image within a display and have it enlarged within the same window, which is in parallel to original source image (See Figure 8).

It would have been obvious to one of ordinary skill in the art at the time of invention by the applicant to have the zoom process disclosed by Cullen ('230) incorporated into the apparatus of Slayden ('901) because by adding the feature, the user can view more of the detail of the image portion contained within the selected fragment.

Thus, claim 19 is rejected under 35 U.S.C. 103(a).

Regarding claim 20, the rationale provided in the rejection of claims 19 and 2 is incorporated herein. In addition, the apparatus of claim 2 and the computer-readable

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medium of claim 19 correspond to the computer-readable medium of claim 20 and perform these steps also.

Regarding claim 21, the rationale provided in the rejection of claims 19 and 3 is incorporated herein. In addition, the apparatus of claim 3 and the computer-readable medium of claim 19 correspond to the computer-readable medium of claim 21 and perform these steps also.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Slayden ('901) in view of Cullen ('230) as applied to claim 7 and further in view of Sakamoto ('555).

Regarding claim 9, Slayden ('901) discloses a print preview display unit, or visual interface (See top part of Figure 9), that takes control action for making image data accessible to a phase specified by the user actions of selecting the mode, generating the preview image and outputting it on the display unit prior to printing (See Col.5, Line 48-58).

Slayden ('901) does not disclose a unit for facilitating the access to the image data by indirect addressing.

Sakamoto ('555) discloses an IC memory card that has both direct and indirect addressing and is used when a program or data is temporarily loaded from the memory card to a main memory such as a floppy drive (Col. 2, Line 15-17). The memory is indirect addressed when the address registers store a memory address to be accessed (See Col. 4, Line 27-29).

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It would be obvious to one of ordinary skill in the art at the time of invention by the applicant to include a memory card unit described by Sakamoto ('555) incorporated into the apparatus of Slayden ('230) because by having the memory card, the user can have a plurality of data, such as images, stored on there for easier access and retrieved by the print preview display unit.

Thus, claim 9 is rejected under 35 U.S.C. 103(a).

Claims 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Slayden ('901) in view of Cullen ('230) and in further view of Kurachi ('436).

Regarding claim 24, Slayden ('901) discloses using an apparatus, or facility, for displaying user-selected preview image modes on a display (See Col. 5, Line 5-7), and generates these preview images of the same object on different resolution levels (See Figure 9-11; Col. 5, Line 7-15) supplied within an application program that generates documents (See Col. 5, Line 1-4).

Slayden ('901) does not disclose the image data being spooled into a spool file and generating preview images based on it.

Kurachi ('436) discloses that a print data storing device stores the received print data in a spool file, or spool area, within the printer of the print managing system (See Figure 1, Element 3; Col. 10, Line 44-48). After a print job is requested, a preview, or a rough, image of the print job data can be viewed through the network (See Figure 5; Col. 7, Line 16-23). The rough image data is done by reducing the bitmap to a predetermined size and viewed all the pages to be printed in parallel when clicked on the print job list (See Col. 9, Line 61-Col. 10, Line 3).

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It would be obvious to one of ordinary skill in the art at the time of invention by the applicant to have the preview generating unit that was spooled from a spool file disclosed by Kurachi ('436) and incorporate it into the print preview display described by Slayden ('901) because adding the spool file image generating unit can give the same results as the normal application would, and the user can view them at different views and resolution levels.

Slayden ('901) also does not disclose a parallelism of the print preview images for being beside one another.

Cullen ('230) discloses that a user is able to zoom in on an image within a display and have it enlarged within the same window, which is in parallel to the original source image (See Figure 8).

It would have been obvious to one of ordinary skill in the art at the time of invention by the applicant to have the zoom process disclosed by Cullen ('230) incorporated into the apparatus of Slayden ('901) because by adding the feature, the user can have a parallelism of the selected images beside one another whenever a selected image is zoomed.

Thus, claim 24 is rejected under 35 U.S.C. 103(a).

Regarding claim 25, Slayden ('901) discloses an apparatus, or facility, for displaying a selected unit page as a first-mode image (See Figure 10). The user can also output a composite view of the image as a second-mode preview image, which is part of a plurality of other element pages printed separately and then put together into a complete print (See Figure 11). Also, when zooming is selected as a third-mode

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preview image, the preview position goes at or near the place where the user clicked (See Col. 7, Line 21-23). These modes are all supplied within an application program that generates documents (See Col. 5, Line 1-4).

Slayden ('901) does not disclose the image data being spooled into a spool file and generating the three mode preview images based on it.

Kurachi ('436) discloses that a print data storing device stores the received print data in a spool file, or spool area, within the printer of the print managing system (See Figure 1, Element 3; Col. 10, Line 44-48). After a print job is requested, a preview, or a rough, image of the print job data can be viewed through the network (See Figure 5; Col. 7, Line 16-23). The rough image data is done by reducing the bitmap to a predetermined size and viewed all the pages to be printed in parallel when clicked on the print job list (See Col. 9, Line 61-Col. 10, Line 3).

It would be obvious to one of ordinary skill in the art at the time of invention by the applicant to have the preview generating unit that was spooled from a spool file disclosed by Kurachi ('436) and incorporate it into the print preview display described by Slayden ('901) because adding the spool file image generating unit can give the same results as the normal application would, such as the user being able to view the three different preview modes at the print job.

Slayden ('901) does not also disclose a spot view control unit on the page so the chosen spot in the designated mode is recognizable.

Cullen ('230) shows that when a user selects a particular area to enlarge, the chosen area is framed and recognizable (See Figure 8).

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It would be obvious to one of ordinary skill in the art at the time of invention by the applicant to have the spot selected frame shown in Cullen ('230) and incorporate into the apparatus of Slayden ('901) because by adding the feature, the user can view more of the detail of the image portion contained within the selected fragment.

Thus, claim 25 is rejected under 35 U.S.C. 103(a).

Regarding claim 26, the rationale provided in the rejection of claim 25 is incorporated herein.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure is: Perlin ('466), Chekerylla ('598), IIsar ('487), Rosenbaum ('109), and Nakagiri ('359).

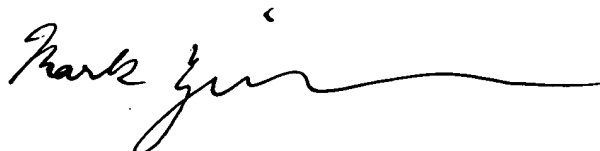
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vincent Rudolph whose telephone number is (571) 272-8243. The examiner can normally be reached on Monday through Friday 8 A.M. - 4:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on (571) 272-7437. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Vincent Rudolph
Examiner
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A handwritten signature in black ink, appearing to read "Mark Zimmerman", with a long horizontal flourish extending to the right.

MARK ZIMMERMAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600